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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,627	08/19/2003	Rolf Stefani	113391	3795

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EXAMINER	
DESIR, PIERRE LOUIS	
ART UNIT	**PAPER NUMBER**
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/642,627	STEFANI ET AL.	
	Examiner	Art Unit	
	Pierre-Louis Desir	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *30 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-20 and 22-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) *31 and 32* is/are allowed.

6)☒ Claim(s) *1,3-20,22-30,33 and 34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The affidavit under 37 CFR 1.132 filed on 10/30/2007 is insufficient to overcome the rejection of claims 1, 3-20, 22-30, 33-34 based upon Monroe, Pub. No. US 2004/0008253 in view of Nelson et al. (Nelson), Pub. No. US 2003/0041155 or Heppe et al. (Heppe), Pub. No. 2002/0004411 as set forth in the last Office action because: In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

Response to Arguments

2. Applicant's arguments filed on 10/30/2007 have been fully considered but they are not persuasive.

Applicants' arguments are similar with the statement present in the affidavit under 37 CFR 1.132 filed on 10/30/2007. And, as stated above, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness. Furthermore, it appears that applicant's arguments are against the references individually. Applicants are respectfully reminded that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 3-20, 22-30, and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe, Pub. No. US 2004/0008253 in view of Nelson et al. (Nelson), Pub. No. US 2003/0041155 or Heppe et al. (Heppe), Pub. No. 2002/0004411.

Regarding claim 1, Monroe discloses a communication system for communicating messages between an aircraft and an operations center (see abstract), comprising: at least one portable control and display unit onboard an aircraft that transmits and receives data communication, voice communication, and video communication *(i.e., the system is adapted for monitoring an aircraft or other vehicle while in route or in flight, for collection and relay of situational awareness data relating to onboard conditions and, where desired, performance and structural data. The system also supplies the data to local and remote monitoring stations via both wired and wireless links. It is an important aspect of this invention that roving personnel, including personnel* ***on the transport while in route such as an Air Marshal on aircraft*** *or the like, can have access to this data using common and inconspicuous devices, such as a* ***laptop computer or PDA or equivalent device****, equipped with a wireless data transceiver. The Air Marshal can have video, data and voice communications utilizing a standard wired or wireless earphone/microphone unit in connection with the laptop computer, PDA or equivalent)* (see

paragraphs 34-35); and a peripheral device located on the aircraft *(i.e., the transport vehicle will include a plurality of strategically placed **cameras**)* (see paragraph 38).

Although Monroe discloses a system comprising at least one portable control and display unit which transmits and receive messages comprising of data communication, voice communication and video communication, and wherein a user employs the at least one portable control and display unit to transmit messages (comprising the at least one of data communication, voice communication or video communication) to and receive messages from a remote operations center via a transceiver communicating through a VHF radio onboard the aircraft *(i.e., the combined data and video outputs and pilot user interface inputs are then distributed to the cockpit module via port 105, to a video display 72, and audio 75. A control panel 73 may be provided to the pilot for controlling distribution of information to the cockpit, and for indication of emergency conditions. Cellular transmission is via the multi communications controller from output port 106. AirCell as shown units provide both air and ground operation modes through the one port. An AN/ARC 182(V) VHF-UHF AM/FM Radio Set is illustrated. LAN data may be introduced to the module and output from the module via LAN port 110 and the distribution hub/switch 112. Digital Cameras with IP connections (not shown) also interface to the hub/switch 112. This **distributes the outgoing signals** to one or more "black box" data IP recorder 114, to a wired LAN interface 116 for onboard LAN devices, **to access point 124 for use by onboard wireless devices,** to access point 118 for use by devices external to the transport. **Portable, wireless monitors or PDA 120, 122 or laptops (not shown) as may be carried by onboard air marshal, by way of example, receive and transmit data via the access point 124 that is also in communication with the hub/switch 112.** The recorder is*

adapted for recording any IP data, including but not limited to encoded video from the cockpit video, radar, MDF and the like, as well as surveillance camera video, encoded audio such as radio receptions into the aircraft, automated flight systems and alarms, open microphones throughout the aircraft and in the cockpit, encoded aircraft instrumentation data such as ***ARINC-429 formatted data****, analog and discrete inputs and the like, and aircraft bus data such as ARINC-573, ARINC-717 and the like. The Air Marshal can have video, data and voice communications utilizing a standard wired or wireless earphone/microphone unit in connection with the laptop computer, PDA or equivalent* (see figs. 6 and 9, and paragraphs 35, 96, and 459), Monroe does not specifically disclose a system comprising an Aircraft Communication and Reporting System (ACARS) transceiver located on the aircraft to send and receive, and wherein messages are received and transmitted from a remote operations center via the ACARS transceiver.

However, Nelson discloses a system wherein an ARINC-429 bus interface can be used by a server to receive data from a plurality of on-board management systems and to allow access to an additional bearer service via an Aircraft Communications Addressing and Reporting System (ACARS) messaging capabilities or Satellite Data Unit (SDU) if so chosen. The server can also receive data transmitted from the ground via ACARS using an interface, wherein additional receiving ports can be added as need to provide further management applications to monitor data from on-board sensors via the ARINC-429 bus interface 145 (see paragraph 42).

And, Heppe discloses that commercial aircraft commonly transmit and receive air/ground digital information **via radio equipment operating in the Very High Frequency (VHF) portion of the radio spectrum, on 25 kHz channels, using a data protocol known as the**

Aircraft Communications Addressing and Reporting System (ACARS). The airborne equipment, ground station equipment and extended ground network all cooperate to support the end-to-end transmission and reception of digital information between an aeronautical mobile station and a ground-based end-system (see paragraph 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by the cited references to arrive at a system as claimed. A motivation for doing so would have been to provide an integrated system capable of monitoring an aircraft or other vehicles while in flight or in route to collect and relay situational awareness data.

Regarding claim 3, Monroe discloses a system (see claim 1 rejection) wherein the at least one portable control and display unit is configured to transmit the messages from the aircraft while in flight *(i.e., the system is adapted for monitoring an aircraft or other vehicle while in route or in flight, for collection and relay of situational awareness data relating to onboard conditions and, where desired, performance and structural data)* (see paragraphs 34 and 459).

Regarding claim 4, Monroe discloses a system (see claim 1 rejection) wherein the messages comprise voice communication (i.e., relayed voice data) (see paragraphs 35 and 112).

Regarding claim 5, Monroe discloses a system (see claim 4 rejection) wherein the at least one portable control and display unit is configured to transmit voice communication from the aircraft while in flight (see abstract, paragraphs 34-35, and 112).

Regarding claim 6, Monroe discloses a system (see claim 1 rejection) wherein the messages comprise video communication (see paragraph 35), the video communication comprising at least one of a real-time video stream or single frames of video image (see

paragraphs 35, 43, 120, and 360).

Regarding claim 7, Monroe discloses a system (see claim 6 rejection) wherein the at least one portable control and display unit is configured to transmit the at least one of a real-time video stream or single frames of video image from the aircraft while in flight (see abstract, paragraphs 34-35, 43, 120, and 360).

Regarding claim 8, Monroe discloses a system (see claim 6 rejection) wherein the real-time video stream includes streaming video and single frames (see fig. 8, paragraphs 8, 105, 120, 267, 458).

Regarding claim 9, Monroe discloses a system (see claim 1 rejection) wherein the at least one portable control and display unit is configured to function as a cellular phone (see paragraph 76).

Regarding claim 10, Monroe discloses a system (see claim 1 rejection) further comprising a SATCOM radio *(i.e., Monroe discloses a system which provides a communications processor that will disseminate the system data utilizing the appropriate communications circuit, such as for an airliner, utilizing **Inmarsat**, "Airphone" radio, and/or "Aircell" for communicating to ground terminals while in flight)* (see paragraph 172).

Regarding claim 11, Monroe discloses a system (see claim 10 rejection) that provides a communication processor that will disseminate the system data utilizing the appropriate communication circuit (see paragraph 172).

Although Monroe discloses a system as described, Monroe does not specifically disclose a system wherein the ACARS transceiver switches to the SATCOM radio when a VHF radio is not communicating.

However, Heppe discloses a system wherein commercial aircraft commonly transmit and receive air/ground digital information via radio equipment operating in the Very High Frequency (VHF) portion of the radio spectrum, on 25 kHz channels, using a data protocol known as the Aircraft Communications Addressing and Reporting System (ACARS). There are several variations of the ACARS protocol in use today, including extensions to satellite relay media and High Frequency (HF) radio.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described in the cited references to arrive at a system wherein the communication processor will utilize the appropriate communication circuit as related to VHF radio or satellite radio to disseminate the system data. A motivation for doing so would have been to provide an integrated system capable of monitoring an aircraft or other vehicles while in flight or in route to collect and relay situational awareness data.

Regarding claim 12, Monroe discloses a system (see claim 1rejection) that provides a communication processor that will disseminate the system data utilizing the appropriate communication circuit (see abstract, and paragraph 172).

Although Monroe discloses a system as described, Monroe does not specifically disclose a system wherein the ACARS transceiver transmits and receives a signal over an existing communication network.

However, Heppe discloses that commercial aircraft commonly transmit and receive air/ground digital information via radio equipment operating in the Very High Frequency (VHF) portion of the radio spectrum, on 25 kHz channels, using a data protocol known as the Aircraft Communications Addressing and Reporting System (ACARS). The airborne equipment, ground

station equipment and extended ground network all cooperate to support the end-to-end transmission and reception of digital information between an aeronautical mobile station and a ground-based end-system (see paragraph 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to provide an integrated system capable of monitoring an aircraft or other vehicles while in flight or in route to collect and relay situational awareness data.

Regarding claim 13, Monroe discloses a system (see claim 1 rejection) wherein the at least one portable control and display unit onboard the aircraft is configured to control at least one of the movement and the functions of the peripheral device *(i.e., on screen controls are provided for selecting, controlling and adjusting cameras)* (see paragraphs 42, 47, and 84).

Regarding claim 14, Monroe discloses a system (see claim 13 rejection) wherein the peripheral device comprises a camera (see paragraphs 47, and 84).

Regarding claim 15, Monroe discloses a system (see claim 14 rejection) wherein the at least one portable control and display unit onboard the aircraft is configured to control the movement of the camera (see paragraphs 47, and 84).

Regarding claim 16, Monroe discloses a system (see claim 13 rejection) wherein the peripheral device is located in a cockpit of the aircraft *(i.e., multiple cameras are located in the cabin, cargo bay and cockpit of the aircraft)* (see paragraph 90).

Regarding claim 17, Monroe discloses a system (see claim 13 rejection) wherein the peripheral device is located in a cabin of the aircraft *(i.e., multiple cameras are located in the cabin, cargo bay and cockpit of the aircraft)* (see paragraph 90).

Regarding claim 18, Monroe discloses a system (see claim 1 rejection) further comprising at least one panic button located at least one of in or on the aircraft and configured to alert the system of a threat condition (see paragraph 36).

Regarding claim 19, Monroe discloses a system (see claim 1 rejection), wherein the messages are encrypted (see paragraph 98).

Regarding claim 20, Monroe discloses a method for communicating messages between an aircraft and a remote operations center (see abstract), comprising employing a portable control and display unit onboard an aircraft to send and receive messages that include data communication, voice communication, and video communication to a communication circuit onboard the aircraft; and automatically retransmitting messages received from the portable control and display unit via the communication circuit to a remote operations center; and automatically retransmitting messages received from a remote operations center via the communication circuit to the portable control and display unit. *(i.e., the system is adapted for monitoring an aircraft or other vehicle while in route or in flight, for collection and relay of situational awareness data relating to onboard conditions and, where desired, performance and structural data. The system also supplies the data to local and remote monitoring stations via both wired and wireless links. It is an important aspect of this invention that roving personnel, including personnel* ***on the transport while in route such as an Air Marshal on aircraft*** *or the like, can have access to this data using common and inconspicuous devices, such as a* ***laptop computer or PDA or equivalent device****, equipped with a wireless data transceiver. The Air Marshal can have video, data and voice communications utilizing a standard wired or wireless*

earphone/microphone unit in connection with the laptop computer, PDA or equivalent) (see figs. 6 and 9, and paragraphs 34-35, and 172).

Although Monroe discloses a method as described, Monroe does not specifically disclose a method wherein messages are being transmitted to and received from a remote operations center via an ACARS transceiver located onboard the aircraft.

However, Nelson discloses a method wherein an ARINC-429 bus interface can be used by a server to receive data from a plurality of on-board management systems and to allow access to an additional bearer service via an Aircraft Communications Addressing and Reporting System (ACARS) messaging capabilities or Satellite Data Unit (SDU) if so chosen. The server can also receive data transmitted from the ground via ACARS using an interface, wherein additional receiving ports can be added as need to provide further management applications to monitor data from on-board sensors via the ARINC-429 bus interface 145 (see paragraph 42).

And, Heppe discloses that commercial aircraft commonly transmit and receive air/ground digital information **via radio equipment operating in the Very High Frequency (VHF) portion of the radio spectrum, on 25 kHz channels, using a data protocol known as the Aircraft Communications Addressing and Reporting System (ACARS)**. The airborne equipment, ground station equipment and extended ground network all cooperate to support the end-to-end transmission and reception of digital information between an aeronautical mobile station and a ground-based end-system (see paragraph 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by the cited references to arrive at a system as claimed. A motivation for doing so would have been to provide an integrated system capable of

monitoring an aircraft or other vehicles while in flight or in route to collect and relay situational awareness data.

Regarding claim 22, Monroe discloses a method (see claim 20 rejection), wherein the portable control and display unit sends messages to and receives messages from another portable control and display unit onboard the aircraft (see paragraph 48).

Regarding claim 23, Monroe discloses a method (see claim 20 rejection), wherein the portable control and display unit sends and receives positional information concerning the location of the aircraft while airborne *(i.e., transport location)* (see paragraphs 112, 169, and 268).

Regarding claim 24, Monroe discloses a method (see claim 23 rejection), wherein the positional information further comprises data regarding other aircraft in the vicinity (see paragraph 268).

Regarding claim 25, Monroe discloses a method (see claim 20 rejection), wherein the portable control and display unit sends and receives a sensor condition input from a physical contact sensor on the aircraft (see paragraphs 38, 40, and 42).

Regarding claim 26, Monroe discloses a method (see claim 25 rejection), wherein the physical contact sensor further comprises at least one of a panic button, a fire detector or a door contact in the aircraft (see paragraphs 36 and 38).

Regarding claim 27, Monroe discloses a method (see claim 30 rejection) further comprising displaying the streaming video on the portable control and display unit (see fig. 8, abstract, paragraphs 34-35, 43, 105, 120, 267, 360, and 458).

Regarding claim 28, Monroe discloses a method (see claim 27 rejection), further comprising selecting a single video frame from the streaming video to be transmitted as the video communication to the remote operations center (see fig. 8, abstract, paragraphs 34-35, 43, 105, 120, 267, 360, and 458).

Regarding claim 29, Monroe discloses a method (see claim 20 rejection), further comprising controlling at least one peripheral device located at least one of on or in the aircraft with the portable control and display unit *(i.e., on screen controls are provided for selecting, controlling and adjusting cameras)* (see paragraphs 42, 47, and 84).

Regarding claim 30, Monroe discloses a method (see claim 29 rejection), wherein at least one peripheral device comprises at least one video camera (see paragraph 35), the method further comprising obtaining the video communication from at least one video camera peripheral device, wherein the video communication comprises a streaming video (see paragraphs 35, 43, 120, and 360).

Regarding claims 33 and 34, Monroe discloses a communication system and method wherein the ACARS transceiver transmits and receives a signal by a iridium satellite modem (see paragraph 105).

Allowable Subject Matter

5. Claims 31-32 are allowed.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is (571) 272-7799. The examiner can normally be reached on Monday-Friday 8:00AM- 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Pierre-Louis Desir
01/21/2008

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER